

# Job Title: Welding Engineer IO0966

Requisition ID **6638** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Construction and Installation - New Posting**

The ITER Organization brings together people from all over the world to be part of a thrilling human adventure in southern France—building the ITER Tokamak. We require the best people in every domain.

We offer challenging full-time assignments in a wide range of areas and encourage applications from candidates with all levels of experience, from recent graduates to experienced professionals. Applications from under-represented ITER Members and from female candidates are strongly encouraged as the ITER Organization supports diversity and gender equality in the workplace.

Our working environment is truly multi-cultural, with 29 different nationalities represented among staff. The ITER Organization Code of Conduct gives guidance in matters of professional ethics to all staff and serves as a reference for the public with regards to the standards of conduct that third parties are entitled to expect when dealing with the ITER Organization.

The south of France is blessed with a very privileged living environment and a mild and sunny climate. The ITER Project is based in Saint Paul-lez-Durance, located between the southern Alps and the Mediterranean Sea—an area offering every conceivable sporting, leisure, and cultural opportunity.

To see why ITER is a great place to work, please look at this video

**Application deadline:** 27/11/2022

**Domain:** Construction Domain

**Department:** Plant Construction Department

**Division:** Field Engineering Installation Division

**Section:** Mechanical & Pip.Inst. Surveillance Sec.

**Group:** Not applicable

**Job Family:** Construction

**Job Role:** Engineer – 3

**Job Grade:** P3

**Language requirements:** Fluent in English (written & spoken)

**Contract duration:** Up to 5 years

## **Purpose**

As a Welding Engineer, you will lead the welding operations supervision during the prefabrication and installation of the Tokamak Complex systems. You will ensure welding activities are compliant with project quality and safety requirements during installation activities, within the defined time schedule. You will coordinate all matters for construction events related to welding discipline.

You will provide technical expertise during IO internal or outsourced Detailed Design activities for the diverse Structures and components under the Field Engineering & Installation Division (FEID) responsibility.

## **Background**

The Mechanical and Piping Installation Surveillance Section (MPIS) performs operator surveillance during installation activities of mechanical and piping systems in different plant areas. Integrated in the Field Engineering and Installation Division is responsible for the design of several transverse functions like penetrations, platforms and shielding assemblies. The MPIS section is responsible of the contract for installation of key plant systems, like the Tokamak Cooling Water System, vacuum systems, Test Blanket System.

## **Key Duties, Scope, and Level of Accountability**

- Leads the welding operation supervision during the prefabrication and installation of structures, systems and components inside the Tokamak Complex or at contractor's premises and provides guidance and technical advice to other supervisors and stakeholders;
- During the design of the System Structures and Components under FEID responsibility, provides technical leadership within the welding discipline, revising welding specifications and calculations performed at IO or by external stakeholders;
- Coordinates the development of technical solutions during welding activities and follows-up on the welding non-conformance and weld repair processes;
- Defines the Surveillance Plans for the contracts under MPIS responsibility when welding is performed, this includes the identification of the Protection Important Activities that IO will control. Writes Surveillance Records for installation activities that are foreseen within the Surveillance Plans according to the INB Order;
- Ensures the implementation of the French Nuclear Pressure Equipment (NPE) regulation, regarding the construction of Nuclear Pressure Equipment like the TCWS piping system;
- Controls the welding related documents produced by contractors: Welding Procedure Specification, Welding Procedure Qualification Records, Welding books, materials and consumables specification;
- Controls the Non-Destructive Examination (NDE) procedures and its execution by contractors;
- Participates in the "Witness" and "Hold" points of the welding process and verifies authorized signatures in conjunction with the Construction Management as Agent (CMA) and QA/QC representatives for inspections, NDE, welding treatment and activities based on approved Inspection & Test Plans;
- Is responsible to provide the necessary technical information to Industrial Partners in reply to their RFI (Request for Information) related to Welding Discipline and to assess other construction events, such as Field Change Requests, Deviation Requests and Non Conformities;
- Supports the CMA in verifying all the manufacture dossiers, welding materials, welding records, as-built drawings and supporting documentation for the project completion;
- Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- May be required to work outside ITER Organization reference working hours, including nights, weekends and public holidays.

## Measure of Effectiveness

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- Provides prompt and accurate technical advice for welding issues and solutions;
- Verifies proper identification and traceability of the activities performed related to welding;
- Proposes and implements efficient strategy and methods in order to define, validate, execute and control welding activity within the defined cost, quality and schedule;
- Resolves already-identified potential safety, quality, or technical issues in a timely manner;
- Generates and maintains coherent and comprehensive documentation;
- Maintains and promotes effective communication channels within the IO, CMA, external stakeholders and Tokamak Complex Systems;
- Assures compliance with the ITER QA/QC program and safety requirements for welding activity.

## Experience & Profile

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- **Professional Experience:**
  - Minimum 8 years' experience in design and supervision of manufacturing or production welds, non-destructive inspections and in implementing welding procedures within complex international environments or nuclear projects;
- **Education:**
  - Master degree or equivalent in Welding Engineering field or other relevant discipline;
  - Qualifications such as "International Welding Specialist" is considered as an advantage;
  - International qualification for NDT/NDE is considered as an advantage;

- The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.
- **Language requirements:**
  - Fluent in English (written and spoken).
- **Technical competencies and demonstrated experience in:**
  - Specific Domain (Welding): Supervision of welding operations within a nuclear environment of Carbon Steel, Stainless Steel or Aluminum and brazing;
  - Fabrication techniques, welding techniques NDT techniques Helium leak testing techniques;
  - Manufacturing & Construction Oversight: Managing overall welding surveillance activities and welding engineering solutions of complex structures, systems and components;
  - Nuclear Safety Requirements: good knowledge of the safety requirements applied to welding design and welding operations in Nuclear Plants.
  - Writing, reviewing and documenting clear and concise reports;
  - Problem Solving: assesses problems, identifies root causes and reaches practical solutions in a consistent way to reach project objectives within sensitive environment and taking corrective actions within scope of responsibility;
  - Welding techniques for components under vacuum is considered as an advantage;
  - Quality Control: Requirements and adherence to international quality codes, standards, methods, and practices, including knowledge of NPE regulations, EN / ISO or equivalent standards on welding and NDT is considered as an advantage.
  - Knowledge of software types usually used within a multidiscipline project environment – computer aided design, scheduling software, estimating software, etc.
- **Behavioral competencies:**
  - Collaborate: Ability to facilitate dialogue with a wide variety of contributors and stakeholders;
  - Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment;
  - Drive results: Ability to persist in the face of challenges to meet deadlines with high standards;
  - Manage Complexity: Ability to analyze multiple and diverse sources of information to understand problems accurately before moving to proposals;
  - Instill trust: Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.

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***The following important information shall apply to all jobs at ITER Organization:***

- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, ITER Values (Trust; Loyalty; Integrity; Excellence; Team mind set; Diversity and Inclusiveness) and Code of Conduct;
- ITER Core technical competencies of 1) Nuclear Safety, environment, radioprotection and pressured equipment 2) Occupational Health, safety & security 3) Quality assurance processes. Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members;
- Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain;
- May be requested to work on beryllium-containing components. In this case, you will be required to follow the established ITER Beryllium Management Program for working safely with beryllium. Training and support will be provided by the ITER Organization;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- Informs the IO Director-General, Domain Head, or Department/Office Head of any important and urgent issues that cannot be handled by line management and that may jeopardize the achievement

of the Project's objectives.